

5,601,593, and required either an amendment or copying of claims to provoke an interference. Applicant copied the claims in accordance with 35 U.S.C. § 1.605. Claims 22-27 have since been canceled. Only claim 21 is present as a claim that was not identically presented prior to one year after the grant date of Freitag.

REQUEST FOR INTERFERENCE WITH PATENT §1.607

Applicant respectfully requests that an interference be declared between the application and Freitag, U.S. Patent 5,601,593 which issued February 11, 1997. At the Examiner's suggestion, applicant copied claims from Freitag, of which claim 21 herein corresponds to Freitag claim 1.

Patent:

Freitag, U.S. Patent 5,601,593

Proposed Count:

A stent for placement in a body tube, the stent comprising a flexible support structure, the support structure comprising at least two groups of strands meshed together, wherein the at least two groups of strands are of a material having a shape memory, and wherein the shape memory of one group of strands is different from the shape memory of another group of strands.

Claim of Patent corresponding to proposed count:

1. A stent for placement in a body tube, the stent comprising a flexible support structure, the support structure comprising at least two groups of wires meshed together, wherein the at least two groups of wires are of a material having shape memory, and wherein the shape memory of the material of one group of wires is different from the shape memory of another group of wires.

Claim of application pending in application within one year of patent issuance:

9. A permanent self-expanding stent having a generally tubular body of a predetermined fabricated diameter comprised, at about normal body temperatures, of a shape-memory, superelastic, austenitic alloy portion and a shape memory, martensitic alloy portion, the superelastic austenitic alloy portion having a transition temperature from martensitic to austenitic less than body temperature while the martensitic alloy portion has a transition temperature from martensitic to austenitic substantially greater than body temperature, the martensitic alloy portion and superelastic austenitic alloy portion being constructed, arranged and associated with respect to each other in comprising the stent such that the two alloy portions act in combination to allow, upon transformation of the austenitic alloy portion to martensitic at a temperature below the transition temperature, constraint of the stent to a deployment diameter smaller than the predetermined fabricated diameter and upon transformation of the austenite alloy portion from martensite back to austenite to self-expand the stent back to about the predetermined fabricated diameter at temperatures in excess of the transition temperature of the austenitic superelastic portion, the shape memory of the superelastic austenitic portion tending to form the stent to a larger diameter due to its shape memory but being restrained therefrom by the martensitic alloy portion whereby the austenitic alloy portion can be deformed by external force without plastic deformation along with the martensitic portion to an enlarged stent diameter beyond that of the self-expanded diameter.

12. The stent of claim 9 wherein the first and second portions are in the form of strands.

Correspondence of Claim 12 to the Count:

Claim 12 is a dependent claim from independent claim 9, listed above to complete claim 12.

Count

A stent for placement in a body tube

the stent comprising a flexible support
structure

the support structure comprising at least two
groups of wires meshed together,

wherein the at least two groups of wires are of
a material having shape memory,

and wherein the shape memory of the
material of one group of wires is different
from the shape memory of another group of
wires.

Claim 12

A permanent self-expanding stent having a
generally tubular body

constraint of the stent to a deployment
diameter smaller than the predetermined
fabricated diameter and upon transformation
of the austenite alloy portion from martensite
back to austenite to self-expand the stent back
...of a shape-memory, superelastic, austenitic
alloy portion and a shape memory,
martensitic alloy portion... wherein the first
and second portions are in the form of
strands.

of a shape-memory, superelastic, austenitic
alloy portion and a shape memory,
martensitic alloy portion

the superelastic austenitic alloy portion
having a transition temperature from
martensitic to austenitic less than body
temperature while the martensitic alloy
portion has a transition temperature from
martensitic to austenitic substantially greater
than body temperature.

CONCLUSION

Claim 12 corresponds to the count as shown above by the parsed claim sections. Claim 21, which was copied more than one year after the patent issued at the Examiner's request, is substantially the same invention as was claimed in original claim 12, which was present before the one year period ran. Therefore, the new application claim satisfies the one year requirements of 35 U.S.C. § 135(b).

Each limitation or element of copied claim 21 is supported by the current application. Figure 6, referred to in our specification at page 10, line 1, as comprising strands of an alloy in the austenitic state 62 extending to the right and strands of an alloy in the martensitic state 64 extending to the left, the strands being braided or interwoven together. See page 2, starting at line 12:

Preferably, the devices of the invention are made of metal and most preferably of shape memory alloys. In one embodiment, a first portion is a resilient spring-like metal for self-expansion and a second portion is a deformable metal for final sizing. In a more preferred shape memory embodiment, a first portion is a self-expanding austenitic one and a second is a martensitic one capable of deformation.

The subject matter of our invention as depicted in Figures 14-16, at page 13, line 8, also supports claim 1 of the '593 reference, as each strand of braided wire in Figures 14-16 comprises two groups of wires meshed together, one group having a different shape memory than the other.

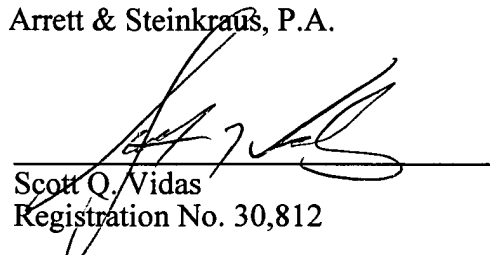
It is believed that this paper is fully responsive to the Office Action. It is respectfully submitted that an adequate showing has been made under 37 C.F.R. § 1.607.

Respectfully submitted,

Vidas, Arrett & Steinkraus, P.A.

Dated: February 5, 1999

By:


Scott Q. Vidas
Registration No. 30,812

6109 Blue Circle Drive
Suite 2000
Minnetonka, MN 55343-9131
Telephone: (612) 563-3000
Facsimile: (612) 563-3001

F:\WPWORK\ISQV\6252-AMD.204